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SECRET

23 October 1951

MEMORANDUM FOR THE RECORD

SUBJECT: Discussions with Corps of Engineers about Field Marking Equipment, Drop Zone and Night Landing.

1. In cooperation with the Applied Physics Branch, the Chemical Branch has undertaken to investigate the use of luminous materials for the guidance of aircraft for night airdrops and night landings.

2. Col. Hammond, Chief of Research and Development, Corps of Engineers, was contacted 24 September 1951. He indicated the following:

a. Some preliminary experiments on use of luminous markers have been carried out at Fort Bragg, but not directly under the Corps of Engineers.

b. Corps of Engineers is interested in the general field of using luminous materials for airdrop markers, and our project would probably fit into their program if we wanted them to work on it.

c. He referred me to Lt. Col. Edgar L. Green, Jr., of the Electrical Equipment Branch.

3. Lt. Col. Edgar L. Green, Jr., was contacted 25 September 1951, and the following information obtained:

a. The Corps of Engineers is initiating a program to study the use of fluorescent road markers for use in blackouts.

b. Their interest is mainly in infra-red activated fluorescent materials, since earlier work has indicated that the activating light source took less power than for ultra-violet activated material; however, they intend to investigate both the infra-red and the ultra-violet fields.

c. He made arrangements for me to contact laboratory personnel at Fort Belvoir.

4. The following points

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4. The following points were brought out during a discussion at Fort Belvoir with [redacted] (Chief of Physics Section), [redacted] (Physics Section), and Lt. Col. Edgar L. Green, Jr., on 1 October 1951: 50X1 50X1

a. The Fort Belvoir laboratories are interested in fluorescent markers for use as road markers; however, apparently they have done but little work on this subject.

b. Many of the U.V.-activated phosphors are fugitive (destroyed by exposure to direct sunlight).

c. U.V.-activated phosphors may be painted or sprayed on suitable surfaces, but there must be a fairly thick layer to give satisfactory intensity of light.

d. Infra-red activated material must be sensitized before exposure to infra-red light. They may be activated by visible light, radioactive radiation, etc.

5. The conclusions the undersigned drew from the talks with men from the Corps of Engineers were:

a. They are interested in the general field of fluorescent and phosphorescent markers, and would undoubtedly be interested in working on our project.

b. Their own work in the field of fluorescent markers is not extensive and is just getting started.

c. If possible, it would be better to find an organization with more knowledge, experience, and facilities in this field to do our work.

[redacted] 50X1

Chemical Branch
Research & Development

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